R E M A R K S

Claims 1-15 were presented for examination and were rejected.

The applicants have amended claim 1 to overcome the rejections. Support for the amendment relating to the "40%-60% range" limitation can be found on page 1, line 34 to page 2, line 1 of the application as filed in the US (*i.e.,* the International application as published). Support for the amendment relating to the "biocompatible material" limitation can be found on page 3, lines 8 to 11 and lines 19 to 20.

The applicants have also canceled claims 2 and 3 without prejudice, and reserve the right to re-add the canceled claims in this or in another application. Finally, the applicants have amended claim 4 to maintain proper dependency of the claim.

The applicants respectfully submit that the claims, as amended, overcome the rejections and request reconsideration in light of the following comments.

35 U.S.C. 102 Rejection of Claims 1-6, 8 and 11

Claims 1 through 6, 8, and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by Kuhlmann, DE 597,472 (hereinafter "Kuhlmann"). The applicants respectfully submit that the amended claim overcomes the rejection.

Claim 1, as amended, recites:

> **1.** A helical formation for a conduit, the helical formation comprising an elongate member defining at least a portion of a helix, the elongate member comprising an inwardly extending portion, the inwardly extending portion extending along the length of the elongate member and extending inwardly from the internal side walls of the conduit for a distance equal to between ***40% and 60%*** of the distance from the longitudinal axis of the conduit to an internal side wall***, wherein the helical formation is formed from a biocompatible material***.
>
> (***emphasis supplied***)

Nowhere does Kuhlmann teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the helical formation is formed from a biocompatible material.

Kuhlmann discloses a conduit having a helical formation and as conducting "gaseous, liquid or powdery media (fluids)", but not in a medical context; in fact, Kuhlmann does not

teach or suggest biocompatibility. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 4 through 6, 8, and 11 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome. Note that claims 2 and 3 have been canceled.

35 U.S.C. 102 Rejection of Claims 1, 6-8, and 11

Claims 1 6 through 8, and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by Schauberger, AT134,543 (hereinafter "Schauberger"). The applicants respectfully submit that the amended claim overcomes the rejection.

Nowhere does Schauberger teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the helical formation is formed from a biocompatible material.

Schauberger instead discloses the provision of vanes on water conduits in order to reduce turbulence. The precise height of the vanes is not stated but from Figure 1 it appears to be around 30% (to use the terminology of the present application). Furthermore, the conduits are for pipes or gutters, not blood flow tubing; in fact, Schauberger does not teach or suggest biocompatibility. For these reasons, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 6 through 8 and 11 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome.

35 U.S.C. 102 Rejection of Claims 1, 6, and 8

Claims 1, 6, and 8 were rejected under 35 U.S.C. 102(b) as being anticipated by Ziegler, DE 2,510,169 (hereinafter "Ziegler"). The applicants respectfully submit that the amended claim overcomes the rejection.

Ziegler does not to disclose anything more relevant than Kuhlmann (discussed above). Because Ziegler fails to cure the deficiencies of Kuhlmann, in that Ziegler also does not teach or suggest biocompatibility, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 6 and 8 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome.

35 U.S.C. 102 Rejection of Claims 1-8 and 11-15

Claims 1 through 8 and 11 through 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Simon, US Patent 5,924,456, issued July 20, 1999 (hereinafter "Simon"). The applicants respectfully submit that the amended claim overcomes the rejection.

Nowhere does Simon teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the helical formation is formed from a biocompatible material.

Simon instead relates to a tubular member for use as a flexible fluid flow hose or as a silencer, for example, for the admission or the exhausts of engine gases. Referring to Figure 6, a plurality of helical ribs 12 is provided on the inside surface of the conduit 10. The conduit is clearly not equivalent to blood flow tubing. In fact, Simon does not teach or suggest biocompatibility. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 4 through 8 and 11 through 15 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome. Note that claims 2 and 3 have been canceled.

35 U.S.C. 102 Rejection of Claims 1-6 and 8-15

Claims 1 through 6 and 8 through 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Buscemi, US Patent 5,500,013, issued March 19, 1996 (hereinafter "Buscemi"). The applicants respectfully submit that the amended claim overcomes the rejection.

Nowhere does Buscemi teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the inwardly extending portion extends inwardly from the internal side walls of the conduit for a distance equal to between 40% and 60% of the distance from the longitudinal axis of the conduit to an internal side wall.

Regarding Buscemi, the Office refers to the stent comprising a helical formation shown in Figure 4. The Office concludes that the height of the inwardly extending portion 60 can be 50% depending on the size of the vessel it is provided in. However, the applicants respectfully submit that there is no explicit reference to the height of the inwardly extending portion 60 in Buscemi and that the Office's analysis seems to be based on hindsight. In other words, there is no positive disclosure in Buscemi that the inwardly

extending portion is in the range 40 to 60%. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 4 through 6 and 8 through 15 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome. Note that claims 2 and 3 have been canceled.

35 U.S.C. 102 Rejection of Claims 1-10

Claims 1 through 10 were rejected under 35 U.S.C. 102(b) as being anticipated by Sawyer, US Patent 5,108,417, issued April 28, 1992 (hereinafter "Sawyer"). The applicants respectfully submit that the amended claim overcomes the rejection.

Nowhere does Sawyer teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the inwardly extending portion extends inwardly from the internal side walls of the conduit for a distance equal to between 40% and 60% of the distance from the longitudinal axis of the conduit to an internal side wall.

Sawyer discloses a helically shaped stent. The Office apparently has taken the view that each segment 130 (see Figure 2) could be up to 50% in height depending upon the size of the vessel in which the member is located. Again, however, the applicants respectfully submit that the Office's view seems to rely on hindsight, as the applicants can see no explicit representation in Sawyer as to the absolute height of the stent, the document instead being mainly concerned with the shape of each segment or successive segments. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 4 through 10 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome. Note that claims 2 and 3 have been canceled.

35 U.S.C. 102 Rejection of Claims 1-10

Claims 1 through 10 were rejected under 35 U.S.C. 102(b) as being anticipated by Jansen, US Patent 5,992,465, issued November 30, 1999 (hereinafter "Jansen"). The applicants respectfully submit that the amended claim overcomes the rejection.

Nowhere does Jansen teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the helical formation is formed from a biocompatible material.

Jansen relates generally to the transport of fluids in conduits such as piping or other ducting. It discloses the provision of sinusoidal shaped vanes 22 which have an apex 24 "disposed between about 0.5 and 0.7, preferably about 0.618 the radius dimension of the conduit 10" (see column 3, lines 15 and 16). Elsewhere in the specification there is reference to a range of between about 0.4 and 0.8. In the terminology of the present application, this corresponds to a height of between 40% and 80%. However, the conduits are apparently for transporting fluid in an industrial manufacturing facility and are not for use in a medical context. In fact, Jansen does not teach or suggest biocompatibility. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 4 through 10 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome. Note that claims 2 and 3 have been canceled.

35 U.S.C. 102 Rejection of Claims 1 and 6-10

Claims 1 and 6 through 10 were rejected under 35 U.S.C. 102(b) as being anticipated by Kojima, US Patent 4,747,697, issued May 31, 1998 (hereinafter "Kojima"). The applicants respectfully submit that the amended claim overcomes the rejection.

Nowhere does Kojima teach or suggest, alone or in combination with the other references, what amended claim 1 recites – namely that the helical formation is formed from a biocompatible material.

Regarding Kojima, the Office refers to this document, which concerns a mixer, in relation to the embodiment shown in Figure 7 in which there are two spiral blade members 23, 24 which project radially inwardly from the internal side wall of a conduit 19. The mixer is described as being use in general industrial contexts (see column 1, lines 10 to 13), and not in a medical context. In fact, Kojima does not teach or suggest biocompatibility. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 6 through 10 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome.

35 U.S.C. 103 Rejection of Claims 7, 9, 10, and 12-15

Claims 7, 9, 10, and 12 through 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhlmann, in view of Tayside, EP 1,254,645, hereinafter ("Tayside").

Tayside, which is an earlier application for the applicant, does disclose the provision of helical flow inducing means 12, but there is no reference in Tayside to the height of such ridging, nor is there reference to a biocompatible material.

Because claims 7, 9, 10, and 12 through 15 depend on amended claim 1 and because Tayside fails to cure the deficiencies of Kuhlmann with respect to amended claim 1, the applicants respectfully submit that the rejection of them is overcome.

Request for Reconsideration Pursuant to 37 C.F.R. 1.111

Having responded to each and every ground for objection and rejection in the Office action mailed September 8, 2006, applicants respectfully request reconsideration of the instant application pursuant to 37 CFR 1.111 and request that the Examiner allow all of the pending claims and pass the application to issue.

If there are remaining issues, the applicants respectfully request that Examiner telephone the applicants' attorney at 732-578-0103 x11 so that those issues can be resolved as quickly as possible.

Respectfully,
John Graeme Houston et al.

By **/Jason Paul DeMont/**
Reg. No. 35793
Attorney for Applicants
732-578-0103 x11

DeMont & Breyer, L.L.C.
Suite 250
100 Commons Way
Holmdel, NJ 07733
United States of America